



Optimizing Android Apps with Google Analytics

Phil Mui, Jim Cotugno, Nick Mihailovski

Feedback: <http://goo.gl/6tWkP>

Hash Tag: #Android



Dashboard

[Intelligence Beta](#)[Visitors](#)[Traffic Sources](#)[Content](#)[Goals](#)

Custom Reporting

My Customizations

[Custom Reports](#)[Advanced Segments](#)[Intelligence Beta](#)[Email](#)

Help Resources

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Dashboard

Apr 10, 2011 - May 10, 2011

[Visits](#)Graph by: [List](#) [Table](#) [Chart](#)

Site Usage

437,236 Visits**1,186,969 Pageviews****2.71 Pages/Visit****67.27% Bounce Rate****00:00:48 Avg. Time on Site****91.27% % New Visits**

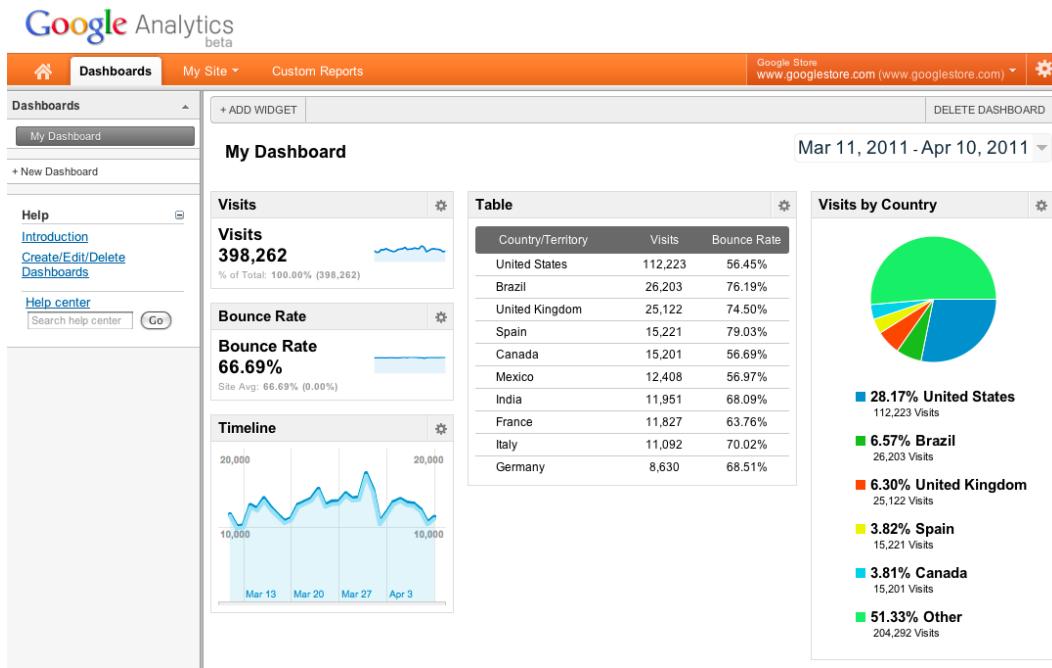
Visitors Overview

**411,102 Visitors**

Map Overlay



Google Analytics v5



- Free, Easy to Install, Robust, Scalable
- “How can we improve user interaction for our sites & apps?”
- “What content are visitors engaged with?”

Web



Rich Media



Adobe



Microsoft®
Silverlight



The New York Times
WELCOME TO THE FUTURE. YOUR NEWSPAPER IS I

Times Reader 2.0 is now powered by Adobe AIR. Get our latest innovation in newspaper for only \$4.42 a week. It's 7 days of the best journalism in the world.



Mobile



Social



Google Analytics

Google Analytics Android SDK



Native App Tracking

Learn how users interact with applications
Tracks:

- Unique Users
- Pageviews
- Events
- Ecommerce
- Custom Variables
- Market Referrals

Getting Started

1. Download SDK: code.google.com/mobile/analytics
 - libGoogleAnalytics.jar
2. Link the library to your application
3. Configure AndroidManifest.xml

```
<uses-permission android:name="android.permission.INTERNET" />  
<uses-permission android:name="android.permission.ACCESS_NETWORK_STATE" />
```

Setting Up A Tracker Object In An Activity

```
GoogleAnalyticsTracker tracker;
```

```
onCreate
```

```
    tracker = GoogleAnalyticsTracker.getInstance();  
    tracker.start("UA-xxx-y", this);
```

Dispatching Events

Tracked data is queued and dispatched in bundles

- Saves battery life
- Can track when users are offline

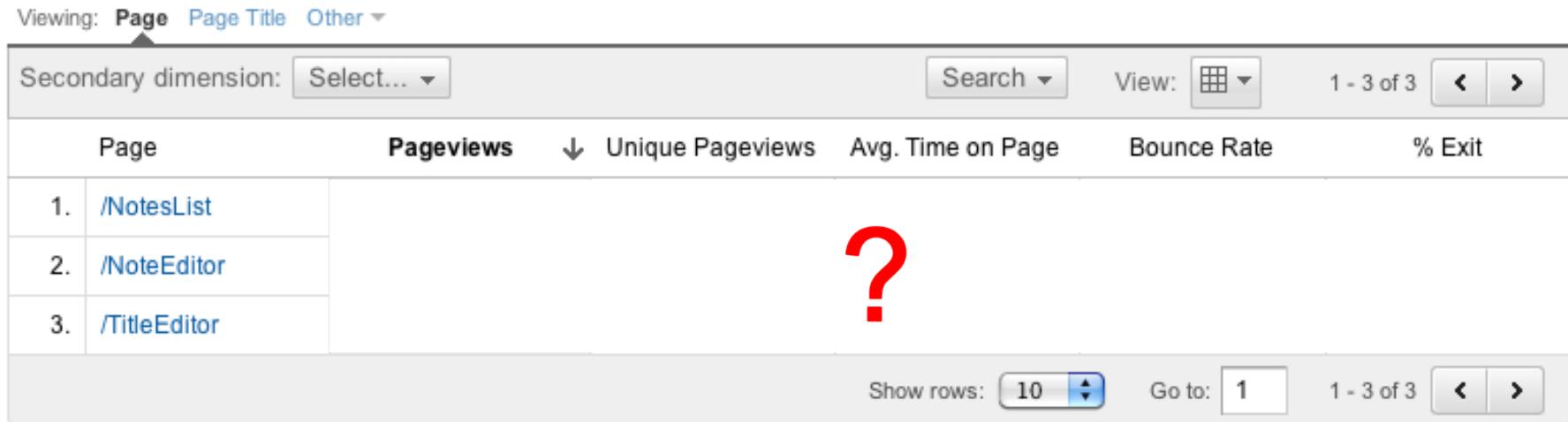
```
tracker.dispatch();
```

- or -

```
tracker.start("UA-xxx-y", 20, this);
```

Tracking Activity Views

- How many people are viewing an activity?
- How many people are watching a view?



Viewing: **Page** Page Title Other ▾

Secondary dimension: Select... ▾

Search ▾ View: Grid ▾ 1 - 3 of 3 ▶ ▶

Page	Pageviews	Unique Pageviews	Avg. Time on Page	Bounce Rate	% Exit
1. /NotesList					
2. /NoteEditor					
3. /TitleEditor					

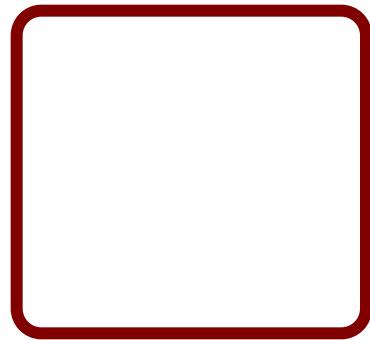
?

Show rows: 10 ▾ Go to: 1 1 - 3 of 3 ▶ ▶

Pageview Tracking Demo

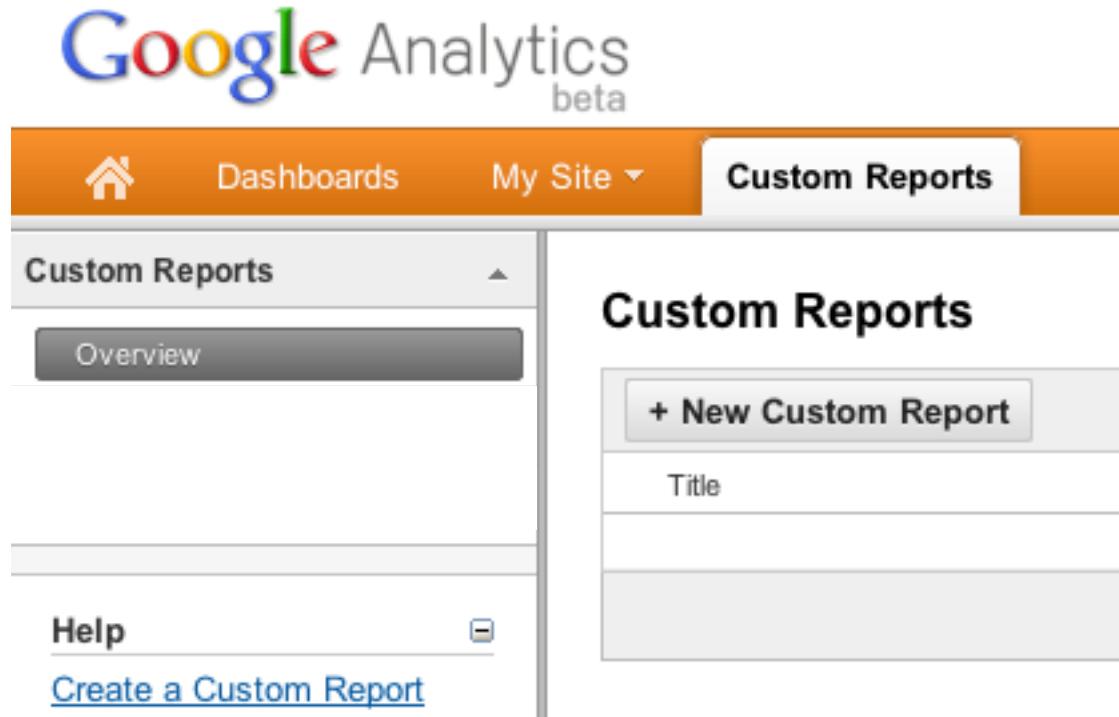
- Notepad app demo of tracking pageviews for activities

Reporting Activity Views



This is example data

Reporting Unique Users



The screenshot shows the Google Analytics beta interface. The top navigation bar includes links for Home, Dashboards, My Site (with a dropdown arrow), and Custom Reports. The 'Custom Reports' link is highlighted with a yellow background. On the left, a sidebar titled 'Custom Reports' has an 'Overview' button, which is also highlighted with a yellow background. Below the sidebar are 'Help' and a 'Create a Custom Report' link. The main content area is titled 'Custom Reports' and features a button labeled '+ New Custom Report'. There are three empty text input fields below the button, labeled 'Title', 'Category', and 'Segment'.

Reporting Unique Users

Report Tab [+ add report tab](#)

Name: Report Tab [×](#)

Type: Flat Table [▼](#)

Dimensions: select up to 2 dimensions

Page [▼](#) [×](#) [+ add dimension](#)

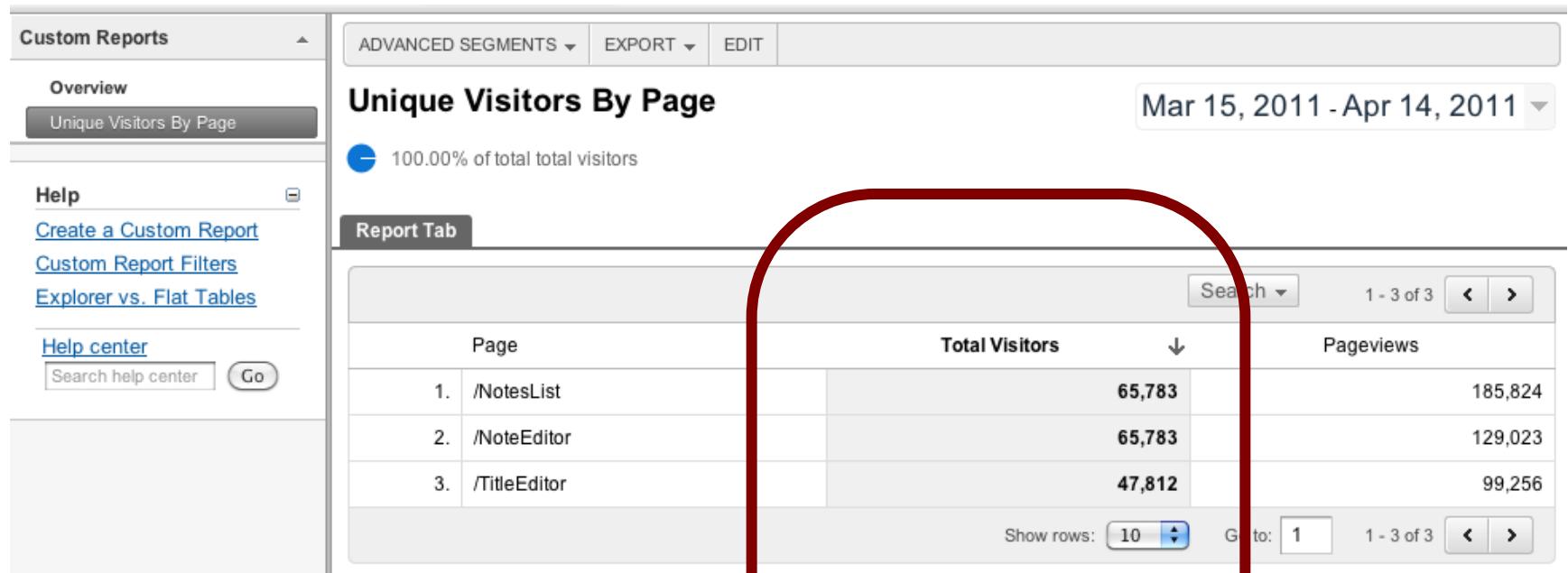
Metrics: select up to 25 metrics

Total Visitors [▼](#) [×](#) Pageviews [▼](#) [×](#) [+ add metric](#)

Visible in **'Notepad App'** profile and [0 other profiles](#)

[Save](#) [Cancel](#)

Reporting Unique Users



Custom Reports ▾

ADVANCED SEGMENTS ▾ EXPORT ▾ EDIT

Unique Visitors By Page

Mar 15, 2011 - Apr 14, 2011 ▾

100.00% of total total visitors

Report Tab

Page	Total Visitors	Pageviews
1. /NotesList	65,783	185,824
2. /NoteEditor	65,783	129,023
3. /TitleEditor	47,812	99,256

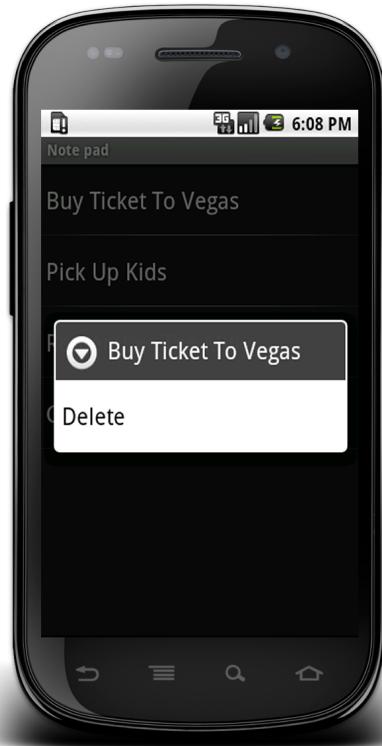
Search ▾ 1 - 3 of 3 < >

Show rows: 10 Go to: 1 1 - 3 of 3 < >

A red oval highlights the data table in the center of the report.

Tracking User Interactions

- How many times do users delete notes?
- From which part in the application do people delete notes?



Event Tracking Implementation Demo

- Tracking when somebody deletes a note

Reporting User Interaction

Visitors ADVANCED SEGMENTS ▾ EXPORT ▾

Top Events Mar 18, 2011 - Apr 17, 2011 ▾

100.00% of total unique events

Explorer

Event Site Usage Ecommerce

Total Events	Unique Events	Event Value	Avg. Value
104,234	80,291	0	0.00
% of Total: 100.00% (23,268)	% of Total: 100.00% (10,415)	% of Total: 0.00% (0)	Site Avg: 0.00 (0.00%)

Graph Mode: Line Chart Compare Metric Graph By:

Content

Overview Site Content Site Search Events AdSense

Events Overview Top Events Pages

Conversions

Help The Top Events Report Viewing Metrics Help center

Search help center Go

Event Category Event Action Event Label

Event Category	Total Events	Unique Events	Event Value	Avg. Value
1. ui_interaction	104,264	80,291	0	0.00

Show rows: 10 Go to: 1 1 - 1 of 1

This is example data

Reporting User Interaction

Viewing: **Event Action** [Event Label](#) [Other](#) ▾

Secondary dimension: Select... ▾		Search ▾	View: Grid ▾	1 - 1 of 1	«	»
Event Action		Total Events	Unique Events	Event Value	Avg. Value	
1.	delete_note	104,264	80,291	0	0.00	
		Show rows: 10 ▾		Go to: 1	1 - 1 of 1	

Viewing: **Event Label** [Other](#) ▾

Secondary dimension: Select... ▾		Search ▾	View: Grid ▾	1 - 0 of 0	«	»
Event Label		Total Events	Unique Events	Event Value	Avg. Value	
1.	NotesList	88,591	66,021	0	0.00	
2.	NoteEditor	15,673	14,270	0	0.00	
		Show rows: 10 ▾		Go to: 1	1 - 0 of 0	

Reporting User Interaction

Report Tab [+ add report tab](#)

Name: [×](#)

Type:

Dimensions: select up to 2 dimensions

[×](#) [×](#)

Metrics: select up to 25 metrics

[×](#) [×](#) [+ add metric](#)

Visible in 'Notepad App' profile and

Reporting User Interaction

ADVANCED SEGMENTS ▾ EXPORT ▾ EDIT

Unique Visitors by Event

Mar 18, 2011 - Apr 17, 2011 ▾

100.00% of total total visitors

Report Tab

Event Action	Event Label	Total Visitors	Total Events
1. delete_note	NotesList	40,321	88,591
2. delete_note	NoteEditor	9,026	15,673

Search ▾ 1 - 1 of 1 < >

Total Visitors: 40,321 Total Events: 88,591

9,026 15,673

Show rows: 10 Go to: 1 1 - 1 of 1 < >



This is example data

Tracking User Preferences

- How does user behavior differ by orientation?

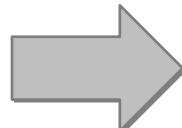


Custom Variables

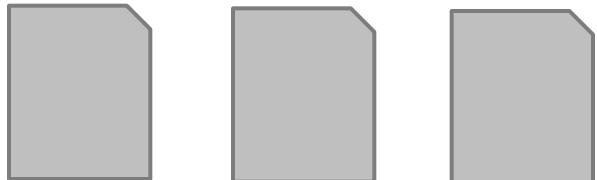
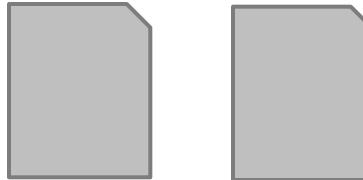
Visitor



Session



Page

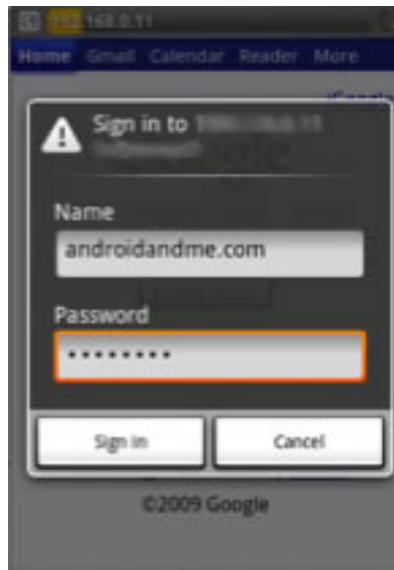
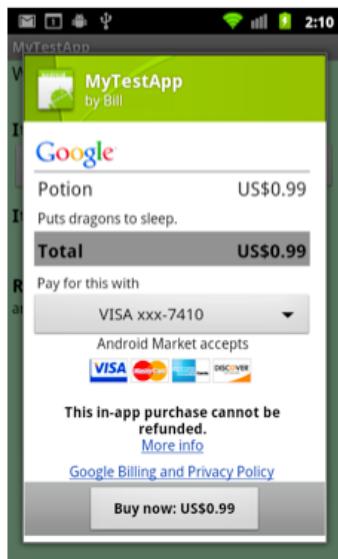


Custom Variables

Visitor

Session

Page



Custom Variables

Visitor

```
tracker.setCustomVar(1, "paid", "yes", 1);
```

Session

```
tracker.setCustomVar(1, "logged_in", "yes", 2);
```

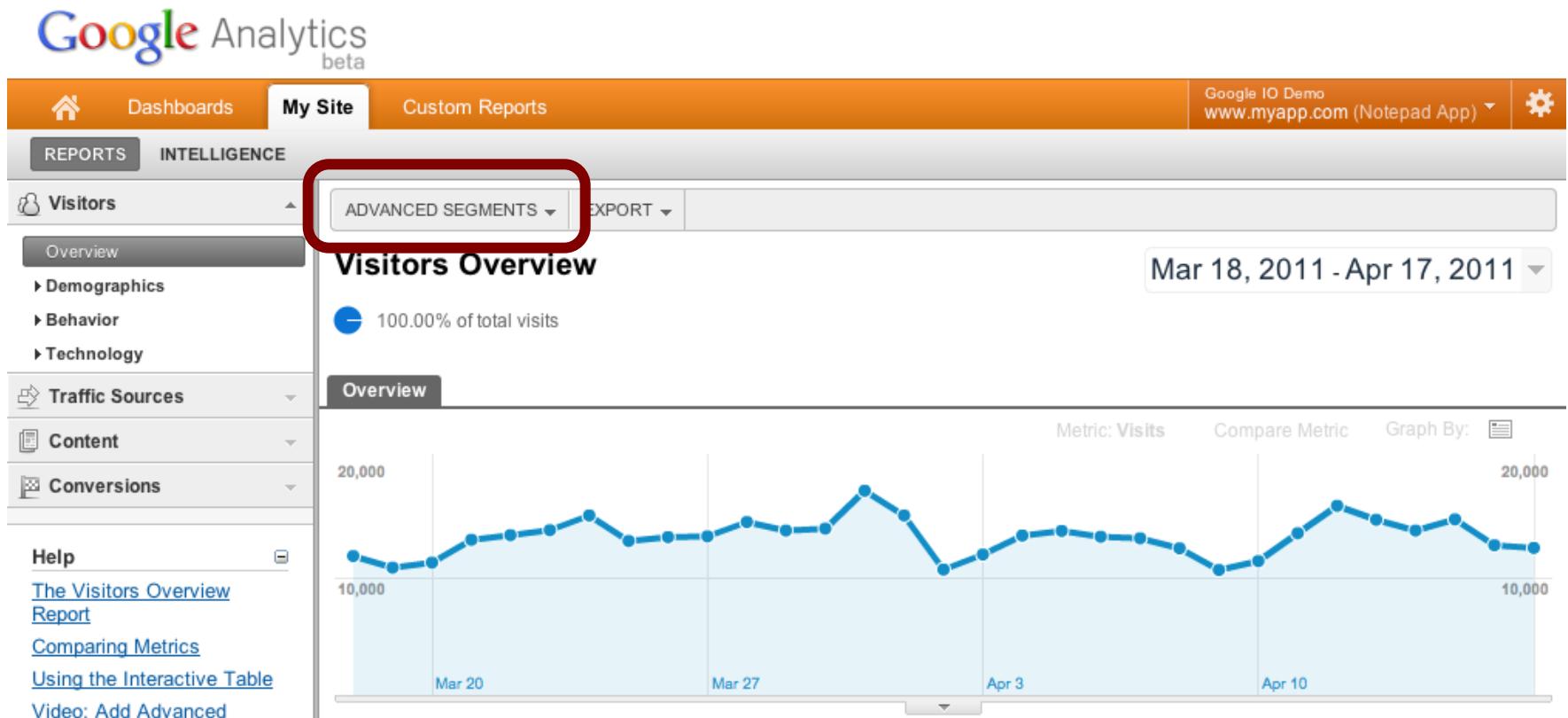
Page

```
tracker.setCustomVar(1, "content_group", "news", 3);
```

Custom Variable Implementation Demo

- When user changes orientation, set a session level custom variable
- Should happen before the activity tracking occurs

Reporting on User Preferences



Reporting on User Preferences

ADVANCED SEGMENTS ▾ EXPORT ▾

Advanced Segments

Select up to four segments to compare

[Create New Advanced Segment](#)

Default Segments

- All Visits
- New Visitors
- Returning Visitors
- Paid Search Traffic
- Non-paid Search Traffic
- Search Traffic
- Direct Traffic
- Referral Traffic
- Visits with Conversions
- Visits with Transactions

Custom Segments



Apply **cancel**

Reporting on User Preferences

ADVANCED SEGMENTS ▾ EXPORT ▾

Name:
Orientation Portrait

Include ▾ Custom Variable (Value 1) ▾ Exactly matching portrait

or

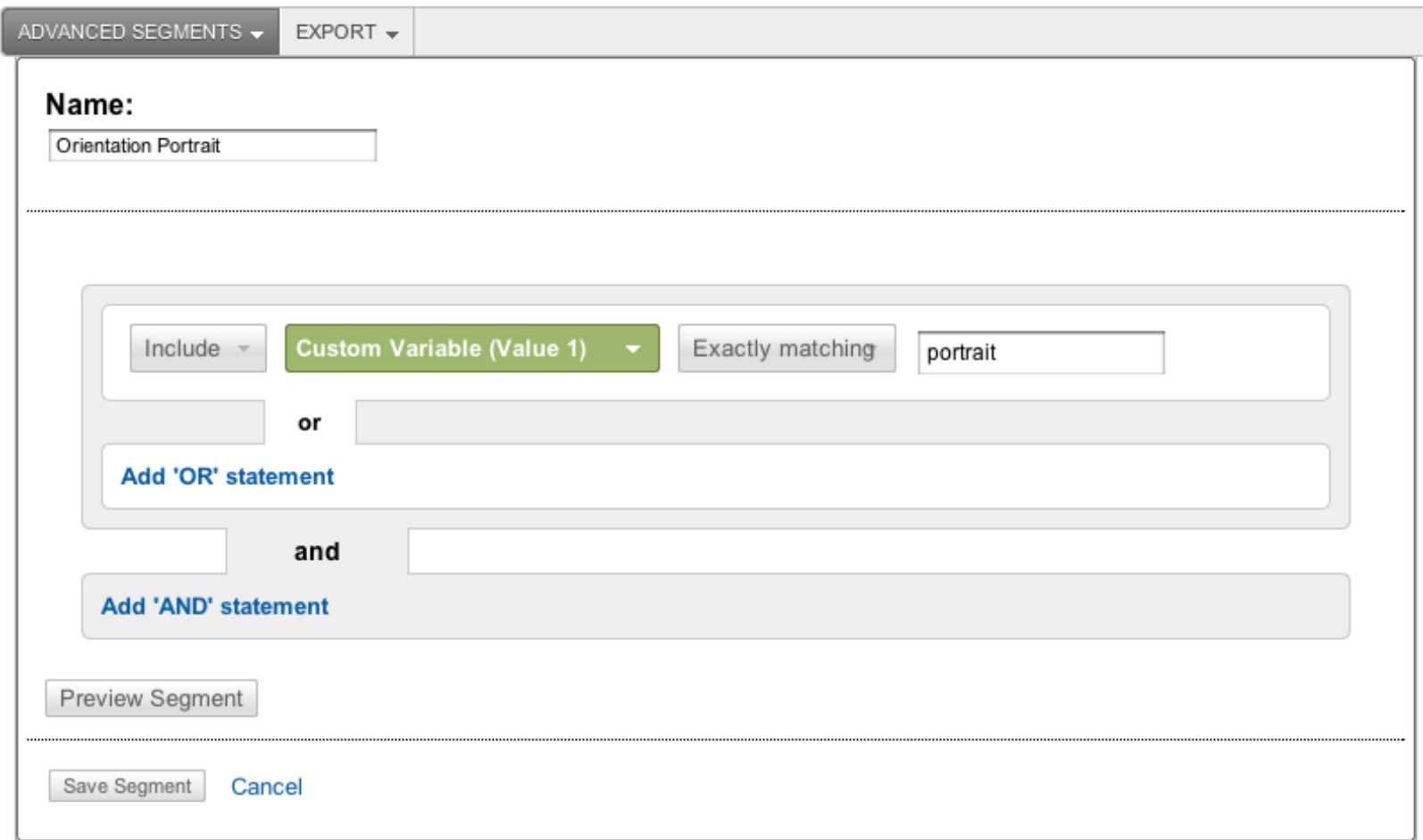
Add 'OR' statement

and

Add 'AND' statement

Preview Segment

Save Segment [Cancel](#)



Reporting on User Preferences

ADVANCED SEGMENTS ▾ EXPORT ▾

Advanced Segments

Select up to four segments to compare

[Create New Advanced Segment](#)

Default Segments

- All Visits
- New Visitors
- Returning Visitors
- Paid Search Traffic
- Non-paid Search Traffic
- Search Traffic
- Direct Traffic
- Referral Traffic
- Visits with Conversions
- Visits with Transactions

Custom Segments

- Orientation Portrait [edit](#)
- Orientation Landscape [edit](#)

[Apply](#) [cancel](#)

Reporting on User Preferences

Custom Reports ▾

Overview

Unique Visitors By Page

Help

[Create a Custom Report](#)

[Custom Report Filters](#)

[Explorer vs. Flat Tables](#)

Help center

Search help center

Go

ADVANCED SEGMENTS ▾ EXPORT ▾ EDIT

Unique Visitors By Page

Mar 15, 2011 - Apr 14, 2011 ▾

100.00% of total total visitors

Report Tab

Page	Total Visitors	Pageviews
1. /NotesList	65,783	185,824
2. /NoteEditor	65,783	129,023
3. /TitleEditor	47,812	99,256

Show rows: 10 ▾ Go to: 1 1 - 3 of 3 ▾



Reporting on User Preferences

Custom Reports ▾

ADVANCED SEGMENTS ▾ EXPORT ▾ EDIT

Overview

Unique Visitors By Page

Help

[Create a Custom Report](#)

[Custom Report Filters](#)

[Explorer vs. Flat Tables](#)

Help center

Search help center

Unique Visitors By Page

Mar 15, 2011 - Apr 14, 2011 ▾

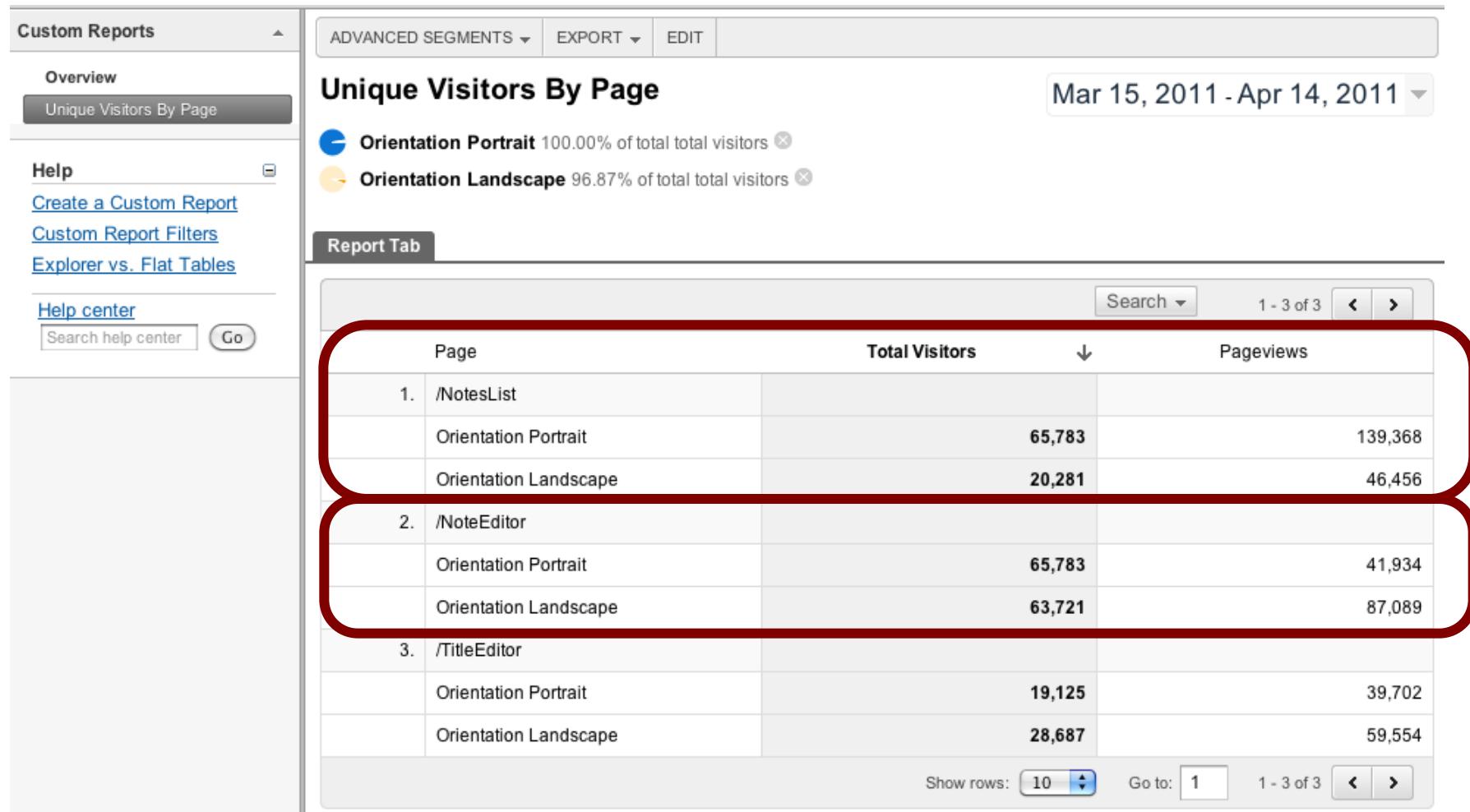
Orientation Portrait 100.00% of total total visitors  

Orientation Landscape 96.87% of total total visitors  

Report Tab

Page	Total Visitors	Pageviews
1. /NotesList		
Orientation Portrait	65,783	139,368
Orientation Landscape	20,281	46,456
2. /NoteEditor		
Orientation Portrait	65,783	41,934
Orientation Landscape	63,721	87,089
3. /TitleEditor		
Orientation Portrait	19,125	39,702
Orientation Landscape	28,687	59,554

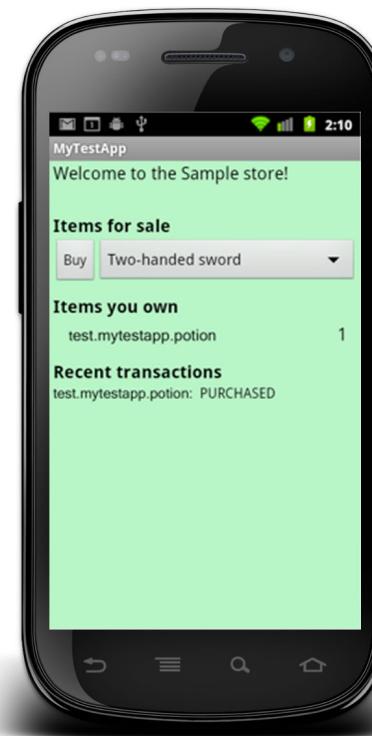
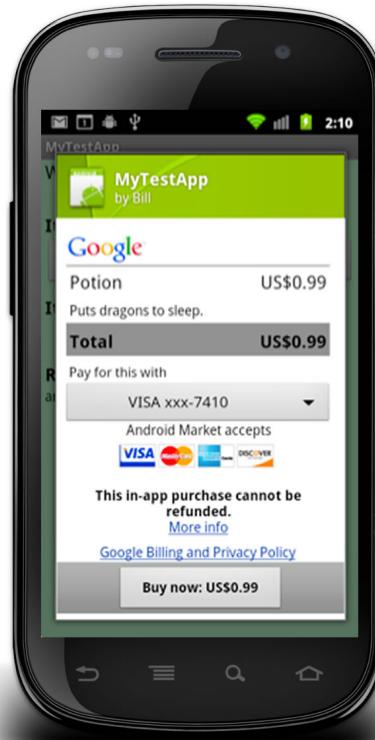
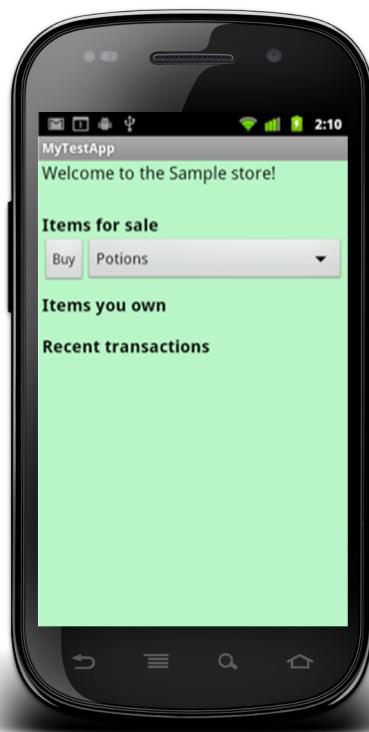
Show rows: 10 Go to: 1 1 - 3 of 3



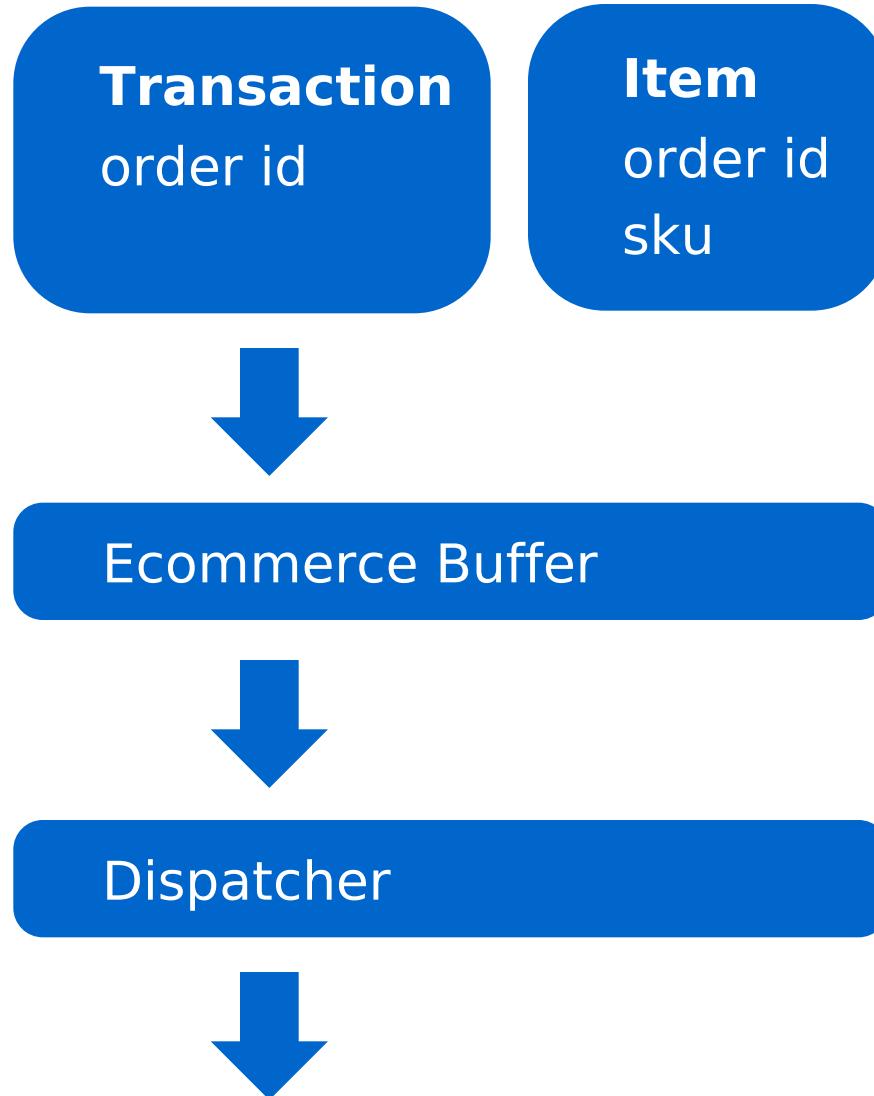
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Orientation Landscape	28,687	59,554

Tracking In App Purchases

- How much revenue does my application generate?
- Which products are most popular?



Ecommerce Tracking



`addTransaction()`

`addItem()`

`trackTransactions()`

`dispatch()`

Ecommerce Tracking Demo

- Implement ecommerce tracking on Android In App Billing

Reporting In App Purchases

Visitors

Traffic Sources

Content

Conversions

- Goals
- Ecommerce
 - Overview
 - Product Performance**
 - Sales Performance
 - Transactions
 - Time to Purchase
- Multi-Channel Funnels

Help

[The Product Performance Report](#)

[Viewing Metrics](#)

[Help center](#)

ADVANCED SEGMENTS ▾ EXPORT ▾

Product Performance

100.00% of total visits

Mar 18, 2011 - Apr 17, 2011 ▾

Explorer

Ecommerce

Quantity 1,349 % of Total: 100.00% (1,349)	Unique Purchases 928 % of Total: 100.00% (928)	Product Revenue \$1,335.51 % of Total: 100.00% (\$1,335.51)	Average Price \$0.99 Site Avg: \$0.99 (0.00%)	Average QTY 1.45 Site Avg: 1.45 (0.00%)
---	---	--	--	--

Graph Mode: Line Chart Compare Metric Graph By:

Viewing: **Product** Product SKU Product Category

	Product	Quantity	Unique Purchases	Product Revenue	Average Price	Average QTY
1.	potions	784	363	\$776.16	\$0.99	2.16
2.	blue sword	427	427	\$422.73	\$0.99	1.00
3.	red sword	138	138	\$136.62	\$0.99	1.00

Show rows: 10 Go to: 1 1 - 3 of 3

Resources

Developer Documentation:

<http://code.google.com/mobile/analytics/>

Download the SDK:

<http://code.google.com/mobile/analytics/download.html>

Get Today's Code

<http://code.google.com/p/analytics-api-samples>

Feedback: <http://goo.gl/6tWkP>

Hash Tag: [#Android](#)

